

WHAT IS CLAIMED IS:

1. A UV-curable pressure-sensitive adhesive composition comprising a photoinitiator which has a molar absorptivity at 365 nm of at least  $1,000 \text{ mol}^{-1} \cdot \text{cm}^{-1}$  and a maximum absorption wavelength of at least 420 nm on a long wavelength side.

2. The UV-curable pressure-sensitive adhesive composition according to claim 1, which contains the photoinitiator in an amount of 0.4 to 20 wt.% based on the whole pressure-sensitive adhesive composition in terms of solid content.

3. The UV-curable pressure-sensitive adhesive composition according to claim 1, wherein the photoinitiator is 2-benzyl-2-dimethylamino-1-(4-morpholinophenyl)-butanone-1.

4. The UV-curable pressure-sensitive adhesive composition according to claim 1, wherein the photoinitiator is bis(2,4,6-trimethylbenzoyl)-phenylphosphine oxide.

5. A UV-curable pressure-sensitive adhesive composition, which comprises:

a pressure-sensitive adhesive polymer;

a polymerization component; and

a photoinitiator,

wherein the photoinitiator has a molar absorptivity

5 at 365 nm of at least  $1,000 \text{ mol}^{-1} \cdot \text{cm}^{-1}$  and a maximum  
absorption wavelength of at least 420 nm on a long  
wavelength side and the UV-curable pressure-sensitive  
adhesive composition contains the photoinitiator in an  
amount of 0.4 to 20 wt.% based on the whole pressure-  
10 sensitive adhesive composition in terms of solid content.

6. A pressure-sensitive adhesive sheet comprising:

a photo-transmitting base film; and

15 a layer comprising a UV-curable pressure-sensitive  
adhesive composition as claimed in claim 1.

7. The pressure-sensitive adhesive sheet according  
to claim 6, which is for use in processing, fixation or  
20 surface protection of a semiconductor wafer.